

WHAT IS CLAIMED IS

1. In a folding hand tool of the Leatherman's type, having plier jaws at one end, the improvement comprising at least one tool extendable at an end thereof having an outer sleeve and a mateable inner sleeve removably mounted thereto and with means for transmitting torque relative thereto; with said inner sleeve having at least one cavity for removably securing a reversible hexagon drive bit in a manner enabling torque to be transmitted between said inner sleeve and said reversible drive bit.

2. The folding hand tool according to claim 1, wherein said inner sleeve is provided with axial cavities, and said cavities removably securing reversible drive bits, so that said outer sleeve with said mateable inner sleeve enables said folding hand tool to embody in 4 in 1 driver tool with hexagon drive bits of varying styles and/or sizes.

3. The folding hand tool according to claim 2, wherein a pair of outer sleeves are employed with like inner sleeves, so that said folding hand tool forms an 8 in 1 driver tool with multiple reversible drive bits removably secured to cavities in said inner sleeves.

4. The folding hand tool according to claim 2, further

including said inner sleeve forming an outer master sleeve drivingly mateable with said outer sleeve; a pair of inner servant sleeves removably mounted to said outer master sleeve so as to transmit torque relative thereto; and reversible drive bits removably secured at opposite ends of said inner servant sleeves, so as to form an 8 in 1 driver tool as a unitary tool element mountable on said folding hand tool.

5. The folding hand tool according to claim 4, wherein said outer sleeve of said unitary tool element is removably mounted by biasable ball detent means to an extension pivotably mounted to a pin on said folding hand tool.

6. The folding hand tool according to claim 2, further including a hexagon crossbore on said folding hand tool for mating with at least said drive bit.

7. A folding hand tool having a handle, and comprising at least one sleeve mountable on an end of said handle; and said sleeve having a mateable inner sleeve removably mounted thereto and with means for transmitting torque relative thereto; and said inner sleeve having at least one cavity for removably securing a reversible hexagon drive bit in a manner enabling torque to be transmitted between said inner sleeve and said reversible drive bit.

8. The folding hand tool according to claim 7, wherein said inner sleeve is provided with axial cavities and each said cavities removably securing reversible drive bits, so that said at least one sleeve with said mating inner sleeve enables said hand tool to embody a 4 in 1 driver tool with hexagon drive bits of varying styles and/or sizes.

9. The folding hand tool according to claim 8, wherein said inner sleeve forms an outer master sleeve drivingly mateable with said mountable sleeve; a pair of inner servant sleeves being removably mounted to said outer master sleeve so as to transmit torque relative thereto; and reversible drive bits removably secured at opposite ends of said inner servant sleeves, so as to form an 8 in 1 drive tool as a single tool element mounted on said handle.

10. The folding hand tool according to claim 8, further including a hexagon crossbore in said handle for mating with at least said hexagon drive bits.

11. The folding hand tool according to claim 10, wherein said inner sleeve is hexagonally formed externally and internally, and said crossbore mates with both said hexagon drive bit and said hexagonally shaped inner sleeve.

12. The folding hand tool according to claim 8, wherein said

sleeve mountable on end of said handle is removably secured thereto by means of a biasable ball detent means.

13. The folding hand tool according to claim 8, wherein said sleeve mountable on an end of said handle is pivotably mounted thereto.

14. The folding hand tool according to claim 7, further including a fixed jaw at one end of said handle and a movable jaw pivotable about said fixed jaw for forming a pliers at an end of said handle opposite to that end having mounted thereon said sleeve.

15. The folding hand tool according to claim 7, wherein said sleeve is pivotably mounted at one end of said tool handle, and a chuck adapted to removably secure a reversible and/or removable drive bit connectable to said chuck; and said tool handle having at least one crossbore for storage of said drive bit.

16. The folding hand tool according to claim 15, further including a plurality of crossbores for storing a plurality of drive bits.

17. The folding hand tool according to claim 15, further including a plurality of tools pivotably mounted to said handle.

18. The folding hand tool according to claim 7, including a fixed jaw at one end of said handle and a moveable jaw pivotable about said fixed jaw; and said sleeve pivotably mounted in on end of said hand opposite to said jaws.

19. A folding/collapsible hand tool, comprising a pair of jaws pivotable about an axis, and connecting handles pivotably mounted to said pivotable jaws about axes traverse to said axis of said jaws; and at least one of said handles comprising an outer sleeve having a mateable inner sleeve removably mounted thereto and with means for transmitting torque relative thereto; with said inner sleeve having at least one cavity for removably securing a reversible hexagon drive bit in a manner enabling torque to be transmitted between said inner sleeve and said reversible drive bit.

20. The folding hand tool according to claim 19, wherein said inner sleeve is provided with axial cavities, and said cavities removably securing reversible drive bits, so that said outer sleeve with said mateable inner sleeve enables said hand tool to embody a 4 in 1 driver tool with hexagon drive bits of varying styles and/or sizes.

21. In a hand tool having at least one movable jaw and at least one handle, the improvement comprising a cavity in said at least one handle, and a mateable inner sleeve removably mounted

thereto and with means for transmitting torque relative thereto; and said inner sleeve having at least one cavity for removably securing a reversible hexagon drive bit in a manner enabling torque to be transmitted between said inner sleeve and said reversible drive bit.

22. The hand tool according to claim 21, wherein said inner sleeve is provided with axial cavities, and said cavities removably securing reversible drive bits, so that said cavity with said mateable inner sleeve enables said hand tool to embody a 4 in 1 driver tool with hexagon drive bits of varying styles and/or sizes.

23. The hand tool according to claim 22, further including a hexagon crossbore on said handle an/or said jaw for mating with at least said drive bit.

24. The hand tool according to claim 22, wherein said hand tool is a plier with a pair of handles, each having a jaw, and said handles being pivotable about an axis adjacent to said jaws.

25. The hand tool according to claim 22, wherein said hand tool is a monkey wrench with a fixed jaw forming part of said at least one handle, and a movable jaw adjustably mounted to said at least one handle in the vicinity of said fixed jaw.

26. A multi-functional hand tool generally defining a longitudinal axis and first and second longitudinal ends, adjustable gripping means provided at said first longitudinal end for selectively gripping a work; and multiple drive bit means at said second longitudinal end for selective movements between a retracted storage position when said driver bit means is not used and an extended position for using one of the driver bits, said driver bit means comprising at least one inner sleeve mounted on the tool and having at least one cavity for removably securing a reversible hexagon drive bit in a manner enabling torque to be transmitted between said inner sleeve and a drive bit.

27. A hand tool as defined in claim 26, wherein said adjustable gripping means comprises jaws of a pliers pivotally mounted relative to each other.

28. A hand tool as defined in claim 27, wherein one jaw is attached to one handle and the other jaw is attached to another handle, said handles being pivotally movable relative to each other to provide relative movements of said jaws.

29. A hand tool as defined in claim 28, wherein said multiple drive bit means is mounted at a free end of said one handle.

30. A hand tool as defined in claim 29, further comprising at least one additional tool pivotably mounted at a free end of said other handle.

31. A hand tool as defined in claim 30, wherein said at least one additional tool comprises a knife blade.

32. A hand tool as defined in claim 30, wherein said at least one additional tool comprises a flat file having a free end and a pivoted end.

33. A hand tool as defined in claim 32, further comprising a bottle cap remover at said free end of said flat file.

34. A hand tool as defined in claim 32, wherein said flat file is provided with at least one serrated edge extending at least along a partial length between said free and pivoted ends.

35. A hand tool as defined in claim 30, wherein said at least one additional tool is mounted for movement about a pivot axis substantially parallel to a pivot axis about which said jaws can move.

36. A hand tool as defined in claim 28, wherein said handles are pivotably movable to substantially define an angle of approximately 90° for positioning said multiple drive means in



said extended position.

37. A hand tool as defined in claim 29, wherein said jaws are pivoted for movements about a first axis, and said multiple drive bit means is pivotably mounted on said one handle for movements about a second axis substantially transverse to said first axis to be movable between said retracted position proximate to said jaws and said extended position remote from said jaws.

38. A hand tool as defined in claim 37, further comprising at least one additional tool pivotably mounted at a free end of said other handle.

39. A hand tool as defined in claim 38, wherein said at least one additional tool comprises at least one knife blade.

40. A hand tool as defined in claim 37, further comprising a generally elongate tool holder pivotably mounted on said other handle for movements about a second axis substantially transverse to said first axis to be movable between a position proximate to said jaws and a position remote from said jaws; and at least one additional tool secured in said tool holder.

41. A hand tool as defined in claim 40, wherein said tool handle is pivotally mounted at one end thereof to said other

handle, and said at least one additional tool comprises at least one knife blade pivotably mounted at another end of said tool holder for movements between an operative position outside said tool holder and a stored position within said tool handle.

42. A hand tool as defined in claim 29, wherein said one handle is provided with a longitudinal cavity extending to a free end remote from said jaws, and said multiple drive bit means is pivotally mounted to said free end to be movable between said retracted position within said longitudinal cavity and said extended position outside and substantially in line with said cavity.

43. A hand tool as defined in claim 42, further comprising at least one additional tool pivotally mounted at a free end of said other handle.

44. A hand tool as defined in claim 43, wherein said at least one additional tool comprises a knife blade.

45. A hand tool as defined in claim 43, wherein said at least one additional tool is mounted for movement about a pivot axis substantially normal to an axis about which said jaws are pivotally movable.

46. A hand tool as defined in claim 42, wherein the hand

tool is a Leatherman-type tool in which said handles are pivotally connected to said jaws and are provided with recesses for receiving said jaws when said gripping means is not used and said handles can be pivoted about said jaws up to 180° to conceal said jaws while still enabling use of other tools mounted on said handles.

47. A hand tool as defined in claim 26, wherein said adjustable gripping means comprises a wrench.

48. A hand tool as defined in claim 47, wherein said wrench is a monkey wrench.

49. A hand tool as defined in claim 47, wherein said adjustable drive bit means is pivotally mounted at said second end.

50. A hand tool as defined in claim 49, further comprising at least one additional tool pivotally mounted at said second end.

51. A hand tool as defined in claim 50, wherein said at least one additional tool and said adjustable drive bit means are mounted for movements about substantially parallel axes.

52. A hand tool as defined in claim 51, wherein said at

least one additional tool comprises a knife blade.

53. A hand tool as defined in claim 51, wherein said at least one additional tool comprises a flat file having a free end and a pivoted end.

54. A hand tool as defined in claim 53, further comprising a bottle cap remover at said free end of said flat file.

55. A hand tool as defined in claim 53, wherein said flat file is provided with at least one serrated edge extending at least along a partial length between said free and pivoted ends.

56. A hand tool as defined in claim 47, wherein an elongate body extends between said first and second ends, said body including a receiving cavity for receiving said drive bit means.

57. A hand tool as defined in claim 56, further comprising a hexagon crossbore for mating with a drive bit.